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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/696,331	10/29/2003	Luc deBoer	122462.0002.007	8099

7590 05/24/2005

ROBERT C. CURFISS  
 Jackson Walker L.L.P.  
 Suite 2100  
 112 E. Pecan Street  
 San Antonio, TX 78205

EXAMINER
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BEACH, THOMAS A

ART UNIT	PAPER NUMBER
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3671

DATE MAILED: 05/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/696,331	<b>Applicant(s)</b> DEBOER, LUC	
	<b>Examiner</b> Thomas A Beach	<b>Art Unit</b> 3671	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,6,7,17,22 and 23 is/are rejected.
- 7) ☒ Claim(s) 2-5,8-16,18-21 and 23-32 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>01/29/04</u> . | 6) <input type="checkbox"/> Other: ____.  |

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## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 6-7, 17 and 22-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Gardes 5,720,356. Gardes shows a system for controlling the density of a drilling fluid in a wellbore in well drilling operations, having a first drill tube 12 having a top end and a bottom end, the top end of said first drill tube being located at the surface 26, the bottom end of said first drill tube being located in the wellbore (fig. 1), said first tube for delivering a drilling fluid 81 having a predetermined density from the surface to the wellbore, said first drill tube having a predetermined outer diameter; and a second drill tube 30 having a top end and a bottom end, the top end of said second drill tube being located at the surface and the bottom end of said second drill tube being located in the wellbore, said second drill tube having a predetermined inner diameter which is greater than the outer diameter of the first drill tube, said second drill tube being arranged such that the first tube is contained within the second drill tube to define an annular space between the outer diameter of the first tube and the inner diameter of the second drill tube, said second tube having at least one set of ports for establishing communication between the annular space within the second drill tube and the wellbore,

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said second drill tube for delivering a base 91 fluid having a predetermined density from the surface to the wellbore via the set of ports (adjacent curved bottom of arrow 91, fig 4b) to create a combination fluid 90, said base fluid having a density different than the predetermined density of the drilling fluid, said combination fluid having a predetermined density that is defined by a selected ratio of the drilling fluid and the base fluid, said combination fluid rising to the surface.

As concerns claims 6-7 and 22-23, Gardes the predetermined density of the base fluid is greater than the predetermined density of the drilling fluid and the predetermined density of the drilling fluid is adapted to facilitate underbalanced drilling operations (col. 3, lines 10-25).

#### ***Allowable Subject Matter***

3. Claims 2-5, 8-16, 18-21, and 23-32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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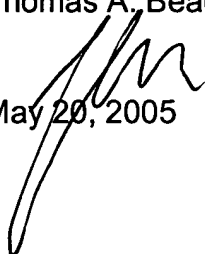
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas A Beach whose telephone number is 571-272-6988. The examiner can normally be reached on Monday-Thursday, 8:00am-6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Will can be reached at 571-272-6998. The fax phone numbers for the organization where this application or proceeding is assigned are 703.872.9306 for regular communications and 703.872.9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.306.4198.

Thomas A. Beach

May 20, 2005

A handwritten signature in black ink, appearing to be 'T. Beach', written over the date 'May 20, 2005'.

**THOMAS A. BEACH**  
Patent Examiner  
Group 3600